



NORTH CAROLINA

Department of Transportation



Integrated Project Delivery Team

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Integrated Project Delivery

PROJECT DELIVERY VISION:

A **CULTURE** where we **PROMISE WHAT WE ARE GOING TO DO** and **DELIVER WHAT WE PROMISE**

THE IPD TEAM

- DOT staff working with nationally recognized experts
- Evaluating existing business practices
- Researching and assessing best practices
- Identifying opportunities for improvement
- Creating an integrated project management process
- Developing an implementation plan and training

The Department has already begun to see the benefits of these efforts and we anticipate full implementation to occur over the next 12 months.



NORTH CAROLINA
Department of Transportation



U.S. Department of Transportation
Federal Highway Administration

HNTB

AECOM



Stantec

ATKINS

Initial Product, Project Development Process

Project Development Process



PURPOSE & OVERVIEW

The purpose of this guide is to provide NCDOT Project Managers with a standardized reference tool to help guide them through the steps of the NCDOT project development process.

Who is this guide for?

- NCDOT Project Management Unit staff
- NCDOT Division Project Managers
- Private Engineering Firm (PEF) Project Managers that work on behalf of NCDOT

How to use this guide

This guide contains informational text, diagrams, and links to other policy and procedures documents, work product templates, and other useful resources.

This guide is an interactive PDF - buttons are hyperlinked – click on them to navigate within the document and to access additional resources.

CONTENTS

Purpose & Overview

Project Development Process

Process Mapping

Project Scheduling

Deliverables

Guidance and Resources

GESG Guidelines



1. Project Development Process Maps

Purpose

Provide Project Managers with a standardized reference tool

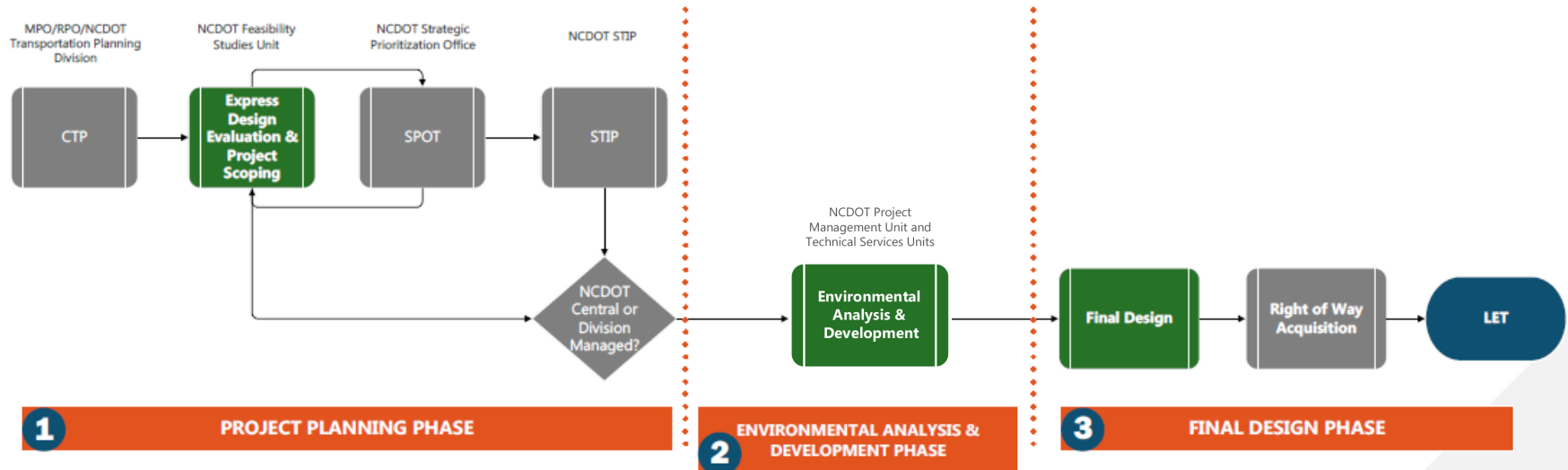
Audience

- NCDOT Project Managers
- Private Engineering Firm Project Managers

Project Development Process Maps



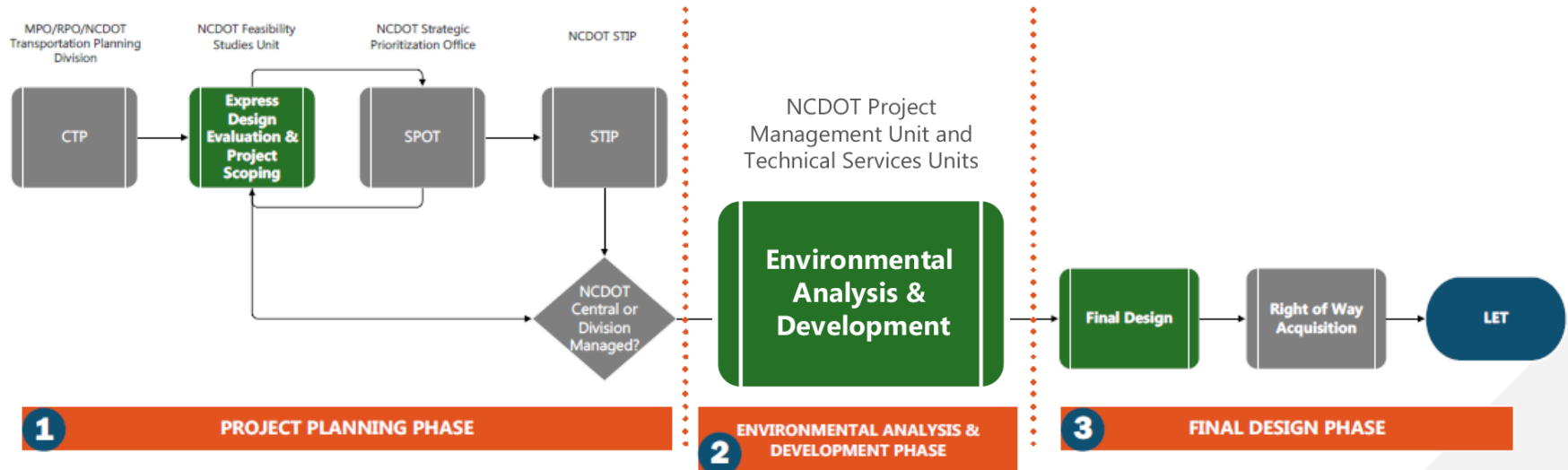
Project Development Overview

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



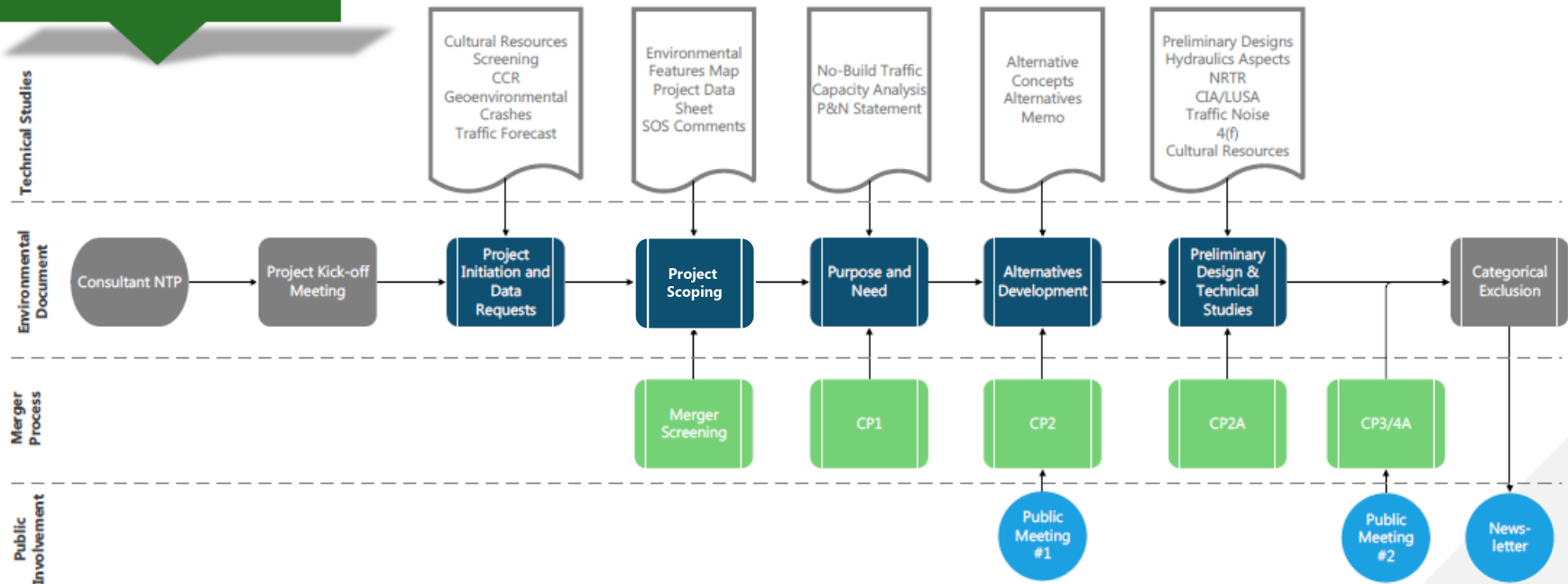
Project Development Overview

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



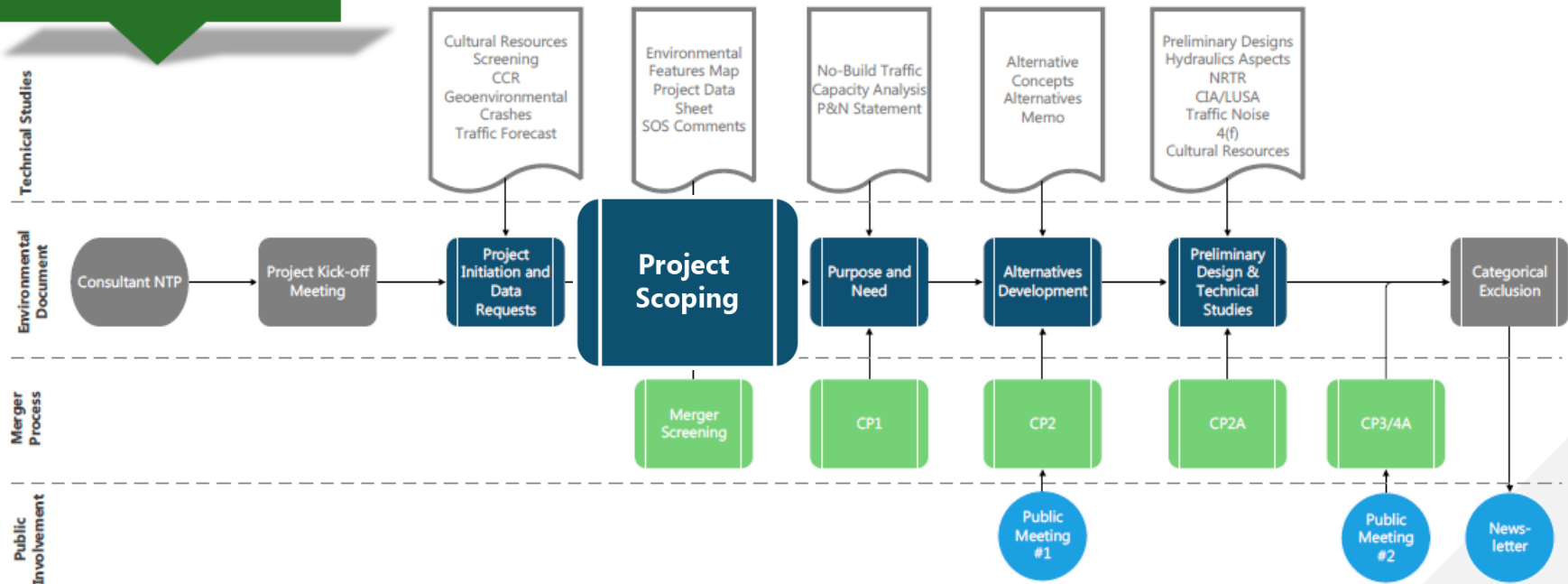
Environmental Documentation

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



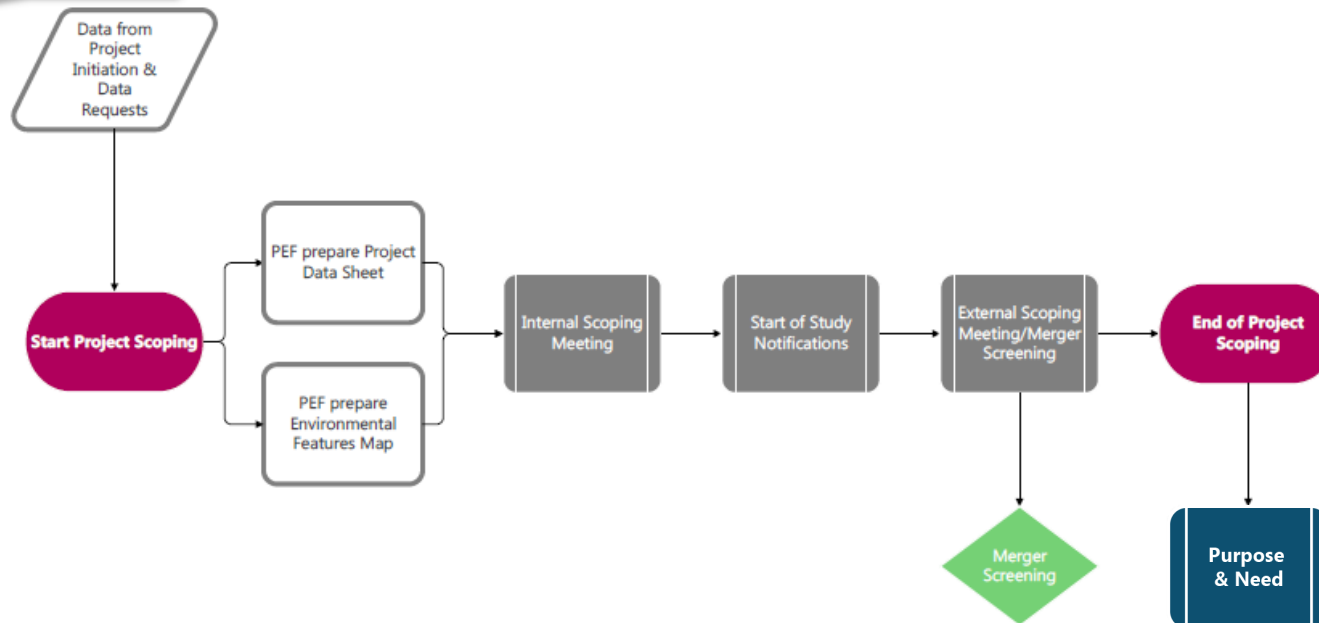
Environmental Documentation

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



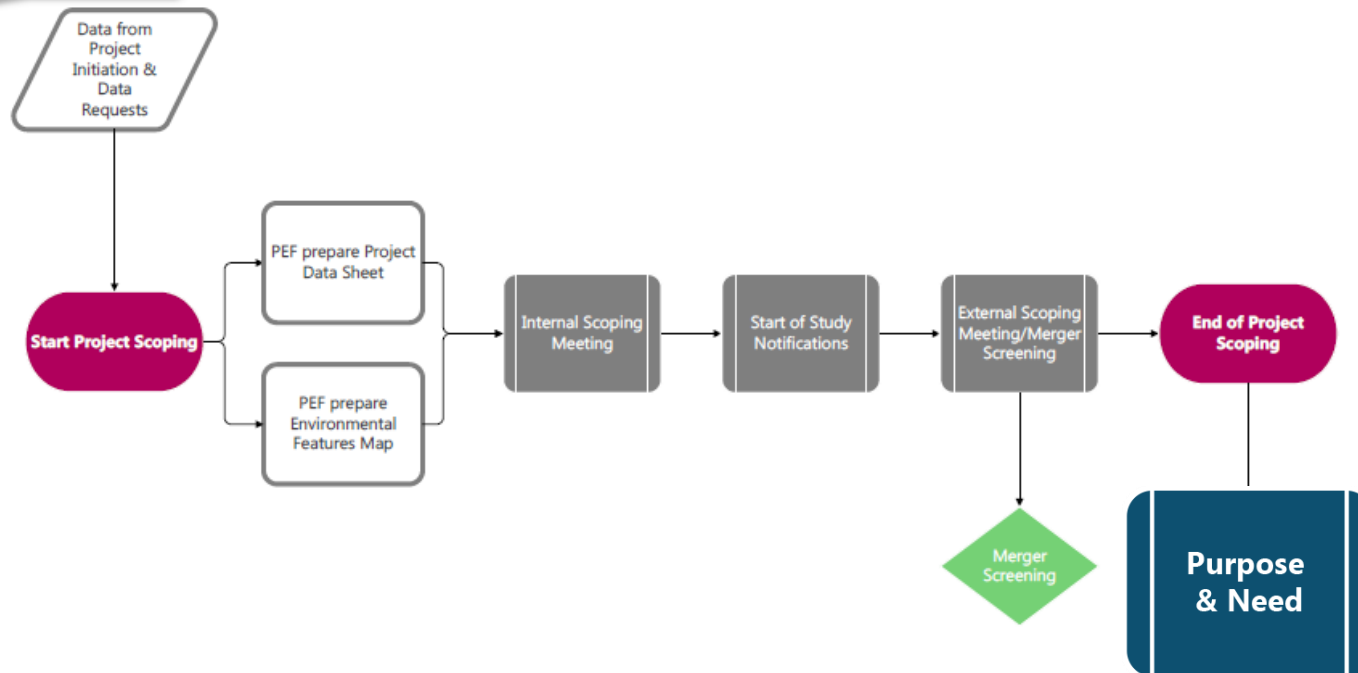
Project Scoping

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



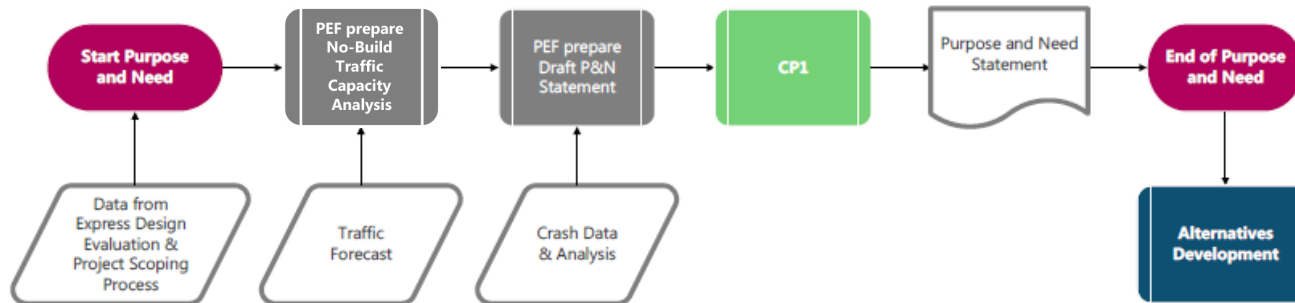
Project Scoping

[HOME](#)[Symbology](#)[Timeline](#)

Project Development Process Maps



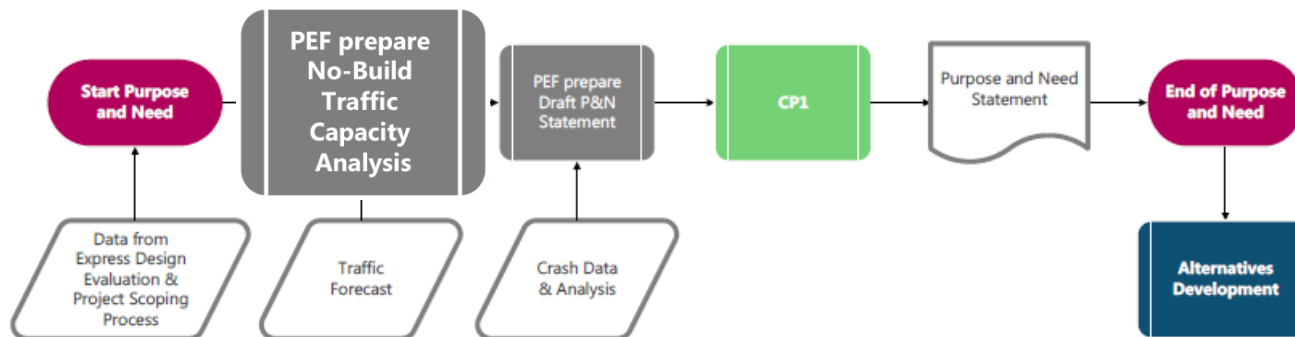
Purpose & Need

[HOME](#)[Symbology](#)[Timeline](#)

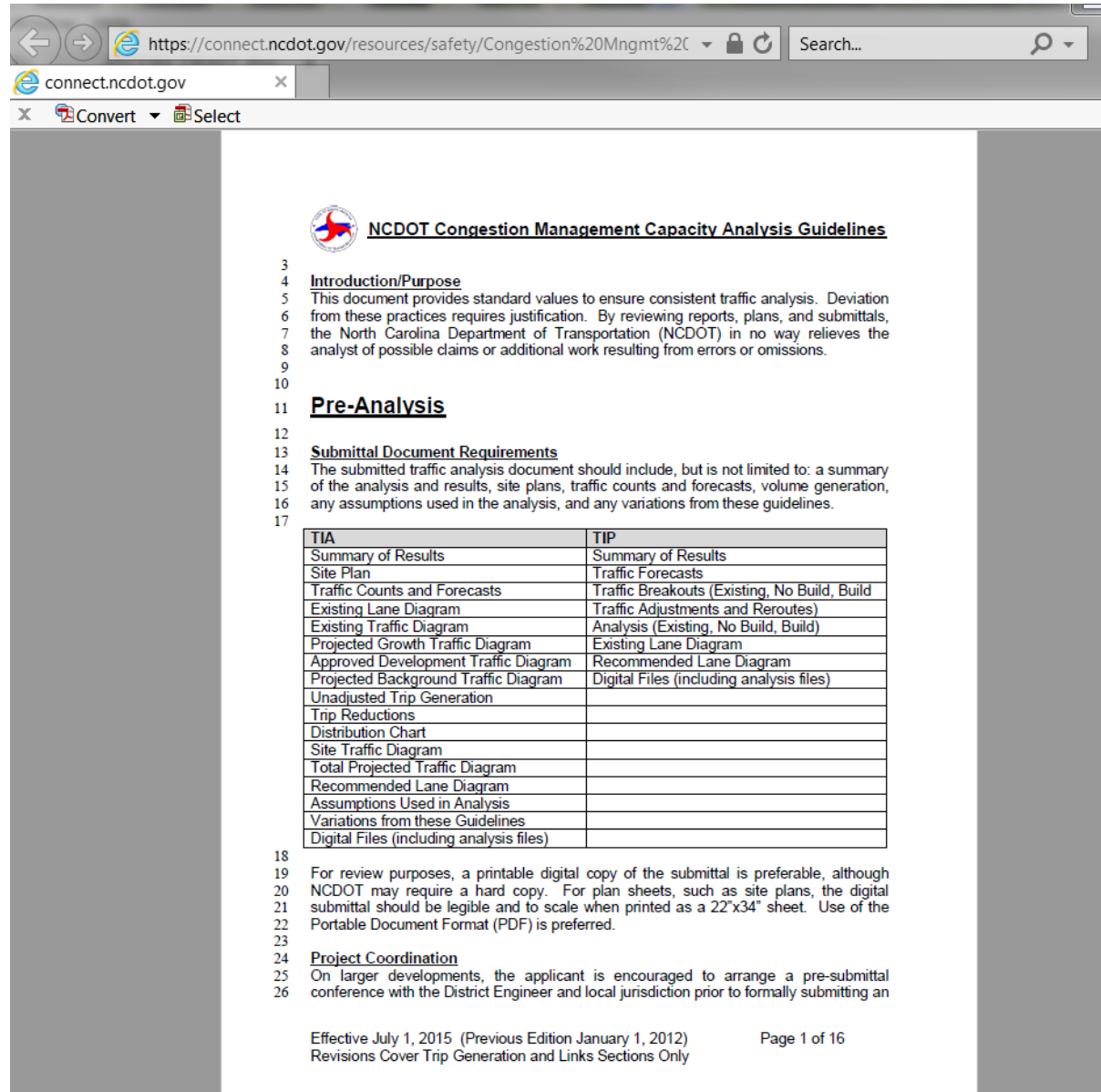
Project Development Process Maps



Purpose & Need

[HOME](#)[Symbology](#)[Timeline](#)

This Example:
Embedded hyperlink directs
user to online guidance



<https://connect.ncdot.gov/resources/safety/Congestion%20Mngmt%20Guidelines>

NCDOT Congestion Management Capacity Analysis Guidelines

Introduction/Purpose
This document provides standard values to ensure consistent traffic analysis. Deviation from these practices requires justification. By reviewing reports, plans, and submittals, the North Carolina Department of Transportation (NCDOT) in no way relieves the analyst of possible claims or additional work resulting from errors or omissions.

Pre-Analysis

Submittal Document Requirements
The submitted traffic analysis document should include, but is not limited to: a summary of the analysis and results, site plans, traffic counts and forecasts, volume generation, any assumptions used in the analysis, and any variations from these guidelines.

TIA	TIP
Summary of Results	Summary of Results
Site Plan	Traffic Forecasts
Traffic Counts and Forecasts	Traffic Breakouts (Existing, No Build, Build)
Existing Lane Diagram	Traffic Adjustments and Reroutes
Existing Traffic Diagram	Analysis (Existing, No Build, Build)
Projected Growth Traffic Diagram	Existing Lane Diagram
Approved Development Traffic Diagram	Recommended Lane Diagram
Projected Background Traffic Diagram	Digital Files (including analysis files)
Unadjusted Trip Generation	
Trip Reductions	
Distribution Chart	
Site Traffic Diagram	
Total Projected Traffic Diagram	
Recommended Lane Diagram	
Assumptions Used in Analysis	
Variations from these Guidelines	
Digital Files (including analysis files)	

For review purposes, a printable digital copy of the submittal is preferable, although NCDOT may require a hard copy. For plan sheets, such as site plans, the digital submittal should be legible and to scale when printed as a 22"x34" sheet. Use of the Portable Document Format (PDF) is preferred.

Project Coordination
On larger developments, the applicant is encouraged to arrange a pre-submittal conference with the District Engineer and local jurisdiction prior to formally submitting an

Effective July 1, 2015 (Previous Edition January 1, 2012)
Revisions Cover Trip Generation and Links Sections Only

Page 1 of 16

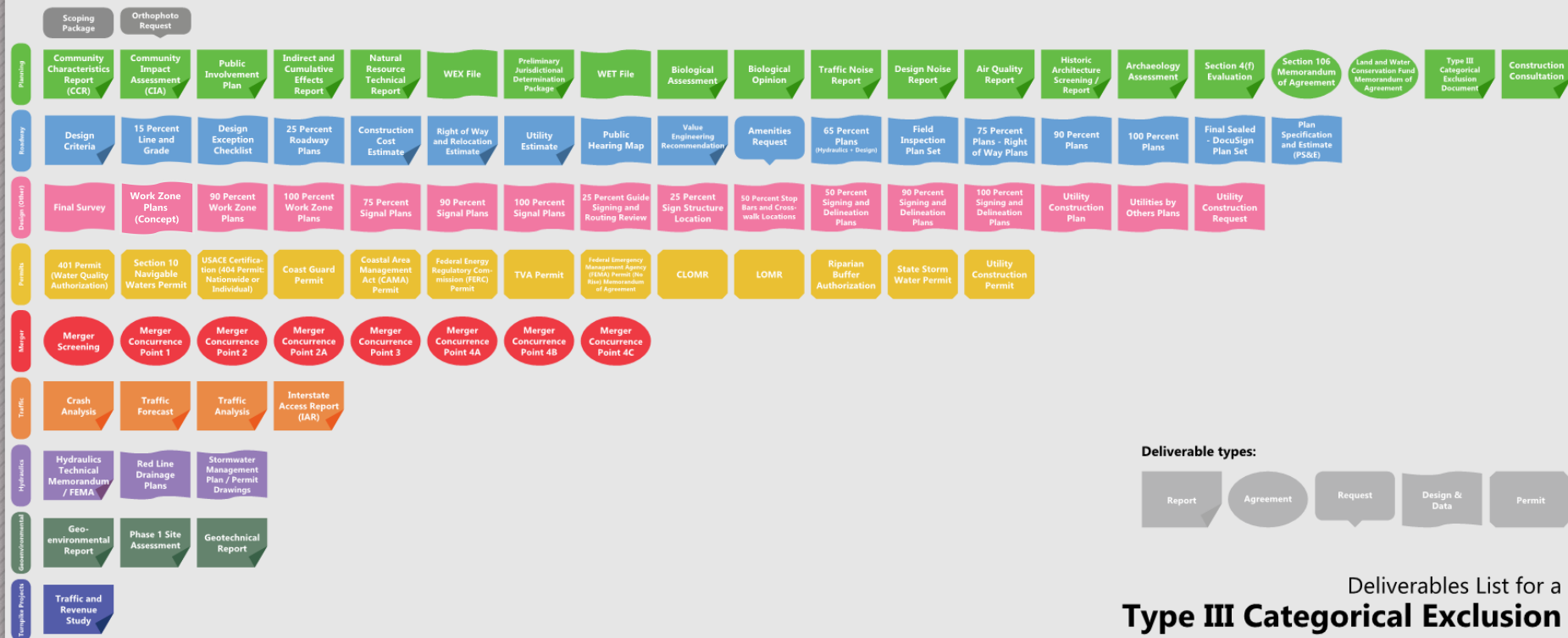
2. Deliverables Guide for Projects Covered by a Type III CE

Purpose

Provide information on the required project deliverables needed to keep a project on schedule

Audience

- Project Managers
- Private Engineering Firm (PEF) Project Managers





A Summary of the Deliverable is Shown

Work Zone Plans (Concept)

Description: Plans developed to lay out lane closure and other traffic control measures that will be undertaken during construction.

Applicability: Projects with over 7,500 ADT and either lane closures or detours (check with Work Zone Traffic Control Unit).

Predecessor / Successor: 25 Percent Plans, Environmental Document, may be done after 65 Percent Plans if hydraulics issues are complex / Field Inspection after 65 Percent Plans, 90 Percent Work Zone Plans

Developer: NCDOT or Consultant

Reviewer / Approver: Work Zone Traffic Control Unit

Review Timeframe: No regulatory requirement

Where Stored on SharePoint: Disciplines > Work Zone Traffic Control > WZ
Topic: PDF Plans

Common Issues: Make sure consistent with current roadway design and hydraulic design; Congestion, bike and pedestrian effects

Suggested Improvements: To be added

[Return to Main Chart](#)

We are asking NCDOT staff to suggest ways to improve each deliverable

Description: Plans developed to lay out lane closure and other traffic control measures that will be undertaken during construction.

Applicability: Projects with over 7,500 ADT and either lane closures or detours (check with Work Zone Traffic Control Unit).

Predecessor / Successor: 25 Percent Plans, Environmental Document, may be done after 65 Percent Plans if hydraulics issues are complex / Field Inspection after 65 Percent Plans, 90 Percent Work Zone Plans

Developer: NCDOT or Consultant

Reviewer / Approver: Work Zone Traffic Control Unit

Review Timeframe: No regulatory requirement

Where Stored on SharePoint: Disciplines > Work Zone Traffic Control > WZ Topic: PDF Plans

Common Issues: Make sure consistent with current roadway design and hydraulic design; Congestion, bike and pedestrian effects

Suggested Improvements: To be added

3. General Engineering Services Consultant (GESc) Guidelines

Purpose

Provide information on how project managers can use general engineering services consultants (GESCs)

Audience

Project Managers

GESG Roles

- Scope Development and Review
- Schedule Development and Administration
- Man-day Estimates
- Environmental Documents and Design Plan Reviews
- Project Management
- Supplemental Design Services

GESG Products Still Under Development

- Scoping Level of Effort Guidance
- Scope of Services Templates
- Cost Estimating Guidance
- Negotiating Equitable Contracts Training

Other Initiatives

- Project Management Roles and Responsibilities Manual
- Streamlined Project Development Process Map
- Project Management Guidelines

Web Address

Connect NCDOT

- <https://connect.ncdot.gov/projects/Project-Management>

For More Information Contact:



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